The Beagle, Occasional Papers of the Northern Territory Museum of Arts and Sciences, 1985, 2(1): 151-155

BOOK REVIEWS

International Code of Zoological Nomenclature

Editorial Committee W.D.L. Ride, C.W. Sabrosky, G. Bernardi and R.V. Melville

International Trust for Zoological Nomenclature in association with The British Museum (Natural History): London 1985 Third edition ISBN 0 85301 003X

Pp.xx+388. £15.00

It may be of some significance that the first two editions of the International Code of Zoological Nomenclature were produced in 1961 and 1964, whereas the third edition took some twenty one years to make its appearance. This prolonged gestation can be accounted for by the fact that draft changes were placed before the zoological community for comment in 1977. Fourteen drafts later the volume arrived in the laboratories. Changes in taxonomy can be a slow and painful process; changes to the code which governs taxonomy may be excruciating.

Well, 'What does it have to offer?' was the immediate question on this reviewer's lips. The answer must be somewhat oblique, for while the Code in many respects reaches the pinnacles of excellence, in others it falls short of such heights.

Clearly, it is unsurpassed in the handling of names. It describes in exhaustive detail how words should be used and structured, and their suitability, or otherwise, for naming taxa. Indeed, the use of names is the theme of the first of the 88 consecutive Articles, and appears in the majority of those which follow. But this is not surprising for:

"The object of the Code is to promote stability and universality in the scientific names of animals and to ensure that the name of each taxon is unique and distinct. All its provisions and recommendations are subservient to these ends and none restricts the freedom of taxonomic thought or action" (Preamble, p.3).

Surely, the question must be asked, is this enough? An investigation of this volume reveals that it is not, and the Code to all its credit goes to some lengths in defining such integrally related matters as what constitutes a publication and what constitutes a species description.

For example, a closer investigation of the relevant Articles indicates that the criteria to be met in the case of a valid publication include:

1. "it must be issued publicly for the purpose of providing a permanent scientific record;
2. it must be obtainable, when first issued, free of charge or by purchase, and
3. it must have been produced in an edition containing simultaneously obtainable copies by a method that assures numerous identical copies". (Article 8, p.13).

Most significantly the Code clearly states what does not constitute a publication and to a degree it attempts to face some of the current problems. It eliminates theses, proofsheets, sound recordings, microfilm, reproduced handwriting, photographs of handwriting, specimen labels, mention of something at a meeting, distribution to colleagues of a note accompanying an illustration, and most significantly, computer printouts and photocopies (although photocopies may be acceptable if they satisfy the criteria of Article 8).

However, while these Articles may provide us with a superficial definition of what constitutes a publication, they tell us nothing of what its quality should be. That is, that it should be a peer-refereed publication in an established scientific journal - but more of this later. It is a little surprising that photocopying is accepted as an appropriate media for publication, since we all know how readily this process permits change. However, a closer reading reveals that it is not acceptable as a form of publication prior to 1986, and any work published in a photocopied format after 1985 "must contain a statement by the author that any new name or nomenclatural act within it is indended for permanent, public, scientific record" and "the relevant information must

be given in words in the work itself" (p.15). Furthermore, such a work must satisfy the provisos of Article 8 (see above).

The Code's concept of a species description is less concise and clear-minded, and in some respects fails to live up to the salutary comment made in the introduction:

"We make no apologies for the wording chosen because we believe that interpretation must be beyond doubt even at the expense of elegance" (p.xvii).

It is in fact not possible for someone to pick up the Code and read in a concise section what constitutes a valid species description, or more significantly, what fails to constitute a species description. There appears to have been no effort made to do this, which is a pity for it makes life difficult for all those who have to use the Code. Indeed, this may be one of the major flaws in the Code; it is designed to make it easy for people to publish a description, but it is not at all clear what the acceptable limits to a valid description are.

For example, it is clearly stated in Article 13 requirement A(1)(p.35) that for a new scientific name to be available after 1930 it must be "accompanied by a description or definition that states in words characters that are purported to differentiate the taxon,"....but it is far more effusive when it comes to exclusions. In names published before 1930 it states under exclusions (p.35):

"The mention of any of the following does not in itself constitute a description, definition or indication: a vernacular name, locality, geological horizon, host, label, or specimen".

But does the broad definition provided for a contemporary description rule out any of these? They don't appear to be excluded in papers written after 1930, and if they are I couldn't find where. It would have been a simple task to provide a table showing the current criteria of what constitutes a species description and what fails to do so. The means of presenting information in the Code is a real problem, and after 21 years one might have expected the committee to have commanded a fresh approach.

Some of the inclusions as to what may constitute a taxon are hard to accept, but the inclusion of ichnotaxa is in my opinon retrogressive. Naming extinct species after their footprints can neither be regarded as taxonomically reasonable nor scientifically valid (Fig. 1). It would seem that, in this case at least, the committee's endeavours to placate the taxonomic community and promote ease of publication, have passed the point of effective return.

Fig. 1. Ichnotaxa.

Indeed, it is this author's view that while the Code does fulfil its basic tenet of providing a stable basis for nomenclature, it ducks some of the fundamental issues dogging taxonomy today. Plagiarism is, and always will be one of the most common and abhorrent forms of taxonomic misuse, yet this subject is relegated to Appendix A, the Code of Ethics. It is placed in a section which "is provided as a guide to good usage in nomenclature", but is lacking the force of rules.

While the code recognizes and attempts to deal with the publication problems associated with photocopying and computerization, it fails to tackle the fact that it is precisely these techniques which have given the modern plagiarist the capacity to destablize nomenclature, and to do so successfully and legitimately. For example, a plagiarist with access to a computer terminal can index all publications in a field, and search for those cases where authors have indicated the presence of undescribed species but have not yet officially designated them as new taxa. The distributions of geographic variants or of chromosome races may also provide such an indication.

More insidiously, species descriptions may be based on theses, or on tape recordings made at meetings at which data or distributions are presented. A specimen need not necessarily be examined if reference is made to a photograph appearing in a book or paper. Clearly, if such an individual had access to a museum register, the task would be so much easier, for specimens can be related to a known locality, thus producing a valid holotype. Computerised plagiarism becomes the simplest and most unskilled of functions.

The Code fails to give taxonomists protection against this form of misuse. Indeed, with a touch of nineteenth century elegance they tell us:

"Intemperate language should not be used in the discussion of zoological nomenclature, which should be debated in a courteous and friendly manner. Difficult problems are most readily and quickly solved by respecting the rules of courtesy in discussing the views of others" (Code of ethics:6).

Presumably, the mild mannered taxonomist should reflect on this when he reads Code 7:

"Editors and others responsible for the publication of zoological papers should avoid publishing any paper that seems to them to contain a breach of the above principle" (Code of ethics:7).

This is precisely the problem which is destabilizing taxonomy throughout the world today, and it will remain with us unless action is taken. The successful computer plagiarists who have access to a word processing facility, photocopying machine, or a simple mimeograph may also be the authors, publishers and editors of their own journals. A simple data retrieval system, no refereeing problems, and a rapid and cheap form of dissemination, makes publishing a simple task.

The Code fails to provide any guideline for determining the quality or scientific merit required of a publication, nor does it provide any criteria for refereeing such a publication. It is unfortunate that the long awaited third edition of the Code of Zoological Nomenclature tells us exactly how to use names, but gives those who wish to do so, in an appropriate scientific manner, scant protection from the less scrupulous members of our community.

ACKNOWLEDGEMENTS

Thanks to Dr Peter Murray for the contribution of his considerable artistic skills.

Max King,
Northern Territory Museum of Arts and Sciences,
G.P.O. Box 4646,
DARWIN, NT 5794, Australia.